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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/857,025	05/31/2001	Kotaro Kawamura	2001-0678A	7698

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EXAMINER

COCKS, JOSIAH C

ART UNIT

PAPER NUMBER

3743

DATE MAILED: 01/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/857,025

Applicant(s)

KAWAMURA ET AL.

Examiner

Josiah C. Cocks

Art Unit

3743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on Response filed 10/31/02.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) 14-18 and 24-26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13, 19-23 and 27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election without traverse of Group I embodied by claims 1-13, 19-23, and 27 in Paper No. 6 is acknowledged.

### ***Drawings***

2. This application has been filed with drawings that are accepted by the examiner.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 3 recites the limitation "said outer vessel" in line 3. There is insufficient antecedent basis for this limitation in the claim. As best can be determined, and for the purpose of an examination on the merits, it appears applicant intended to recite --said outer wall--.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 1-10, 12, 13, 19-21, 23, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Endoh et al.* (US # 6,234,787) in view of *Henkelmann* (US # 5,643,544) (note: *Endoh et al.* is the US patent corresponding to PCT document WO98/06977 filed under § 371 and published 2/19/98).

*Endoh et al.* discloses in Figures 1-4 a waste gas treatment and method of operating substantially as described including a cylindrical combustion chamber and burner member wherein the combustion chamber includes an outer wall (11) and an inner wall (inside wall of 12) and thermal insulator made of a porous ceramic material (see col. 3, lines 14-24) disposed between the inner and outer walls. *Endoh et al.* further discloses purge gas supply means (38), air nozzles (4) (see col. 3, lines 41-61), a chamber (20) containing spray nozzles (19) for liquid coolant, and spray nozzles (5) for removing powders from the inner surface of the wall (12).

Endoh et al. possibly does not disclose that the combustion chamber is formed from any inner wall made of fiber-reinforced ceramic material.

*Henkelmann* teaches a waste gas treatment system including a ceramic fiber lining (174) for the combustion chamber.

Therefore, in regard to claims 1-10, 12, 13, 19-21, 23, and 27, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the waste gas treatment system and method of *Endoh et al.* to incorporate the ceramic fiber lining of *Henkelmann* because such a lining renders the combustion chamber substantially impervious to thermal shock (see *Henkelmann*, col. 6, lines 48-53 and col. 7, lines col. 8, lines 43-51).

8. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Endoh et al.* in view of *Henkelmann* as applied to claim 1 above, and further in view of *Pritchard et al.* (US # 5,462,429) (cited by applicant).

*Endoh et al.* in view of *Henkelmann* teaches all the limitations of claim 11 except possibly for a dust scraping plate secured to a distal end of a vertically moving shaft.

*Pritchard et al.* teaches a mechanical wiper for a waste gas incinerator including a wiper rod (40) that may be configured to move vertically (see col. 6, lines 55-68) and wiper segment/plate (49).

Therefore, in regard to claim 11, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the waste gas treatment system of *Endoh et al.* to incorporate the mechanical wiper of *Pritchard et al.* for the desirable purpose of

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removing combustion products buildup from the inner wall of the combustion chamber (see *Pritchard et al.*, col. 2, lines 56-64).

9. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Endoh et al.* in view of *Henkelmann* as applied to claim 1 above, and further in view of *Pillard* (US # 3,885,919).

*Endoh et al.* in view of *Henkelmann* teach all the limitations of claim 22 except that the internal diameter of the waste gas inlet and/or the cylindrical member gradually increases toward the combustion chamber.

*Pillard* teaches a waste gas treatment system wherein the waste gas is fed into chambers that gradually increase (see Fig. 1).

Therefore, in regard to claim 22, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the system of *Endoh et al.* to incorporate the gradually increasing chambers of *Pillard* as the arrangement of the chambers desirably attains a good quality of combustion of the gaseous effluents (see *Pillard*, col. 2, lines 10-21).

### ***Conclusion***

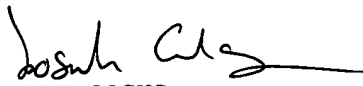
10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. *Altmann et al.*, *Reed*, *Bartz et al.* (US # 5,603,905), *Smith et al.*, JP 10061934, and EP 0 160 524 are included to further show the state of the art concerning waste gas treatment systems. *Rex, Jr. et al.* are included to further show the state of the art concerning fiber-reinforced ceramic combustion chambers.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Josiah Cocks whose telephone number is (703) 305-0450. The examiner can normally be reached on weekdays from 7:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Bennett, can be reached at (703) 308-0101. The fax phone numbers for this Group are (703) 308-7764 for regular communications and (703) 305-3463 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0861.

jcc  
January 13, 2003

  
JOSIAH COCKS  
PATENT EXAMINER  
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